

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)

Ross-Markham, Inc.
P.O. Box 3389
Kinston, NC 28502

15. TELEPHONE NO (Include area code)

(919)522-5231

16. REMITTANCE ADDRESS (Include only if different than Item 14)

CODE FACILITY CODE

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government within _____ calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirement stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)

AMOUNTS ▶ BASE BID: \$248,980.00

18. The offeror agrees (a) to carry out this offer if the Government accepts it by signing Item 31B within the time specified in Item 13C (b) to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)

AMENDMENT NO.	1	2							
DATE	8/25	8/29							

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
Robert L. Deaver, President

20B. SIGNATURE
Robert L. Deaver

20C. OFFER DATE
11 Sept. 86

AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

Base Bid of NAVFAC Specification No. 05-86-5423 and Amendment Nos. 1 and 2.

COMPLETION DATE: 7 April 1987

22. AMOUNT
\$248,980.00

23. ACCOUNTING AND APPROPRIATION DATA
623 7919 23100 (\$159,980)
1761106.2720 000 67001 0 067001 2D 000000
623 7920 23100 (\$65,000) 623 7921 23100 (\$24,000)

24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) ITEM 26

25. NEGOTIATED PURSUANT TO
 10 USC 2304(a)(5) 41 USC 252(c)()

26. ADMINISTERED BY CODE
Officer in Charge of Construction
Marine Corps Base
Camp Lejeune, North Carolina 28542-5000
P. F. HAM, LT, CEC, USNR (919) 451-2583

27. PAYMENT WILL BE MADE BY
Disbursing Officer
Marine Corps Base
Camp Lejeune, North Carolina 28542-5000

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

Dist:
MCB - COMPT BMO (PA)
JAX - 02 04 05 05S 05B Acosta V
LANTDIV - 02 05B 014 09A21B3 407
CMC Tax
SBA Payroll
State Revenue AGC-Fayetteville
Dodge

29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation, is hereby accepted as to the items listed. This award commences the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document necessary.

31A. NAME OF CONTRACTING OFFICER (Type or print)
T. L. HUGUELET
COMMANDER, CEC, USN

31B. UNITED STATES OF AMERICA
BY /s/T. L. HUGUELET
31C. AWARD DATE
24 Sep 86

SOLICITATION, OFFER,
AND AWARD

(Construction, Alteration, or Repair)

N62470-86-B-5423

ADVERTISED (IFB)
 NEGOTIATED (RFP)

12 Aug 86

1 of 2

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO. N62470-86-B-5423		5. REQUISITION/PURCHASE REQUEST NO. N/A	6. PROJECT NO.
7. ISSUED BY OFFICER IN CHARGE OF CONSTRUCTION JACKSONVILLE NORTH CAROLINA AREA BUILDING 1005, MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542-5000		CODE	8. ADDRESS OFFER TO OFFICER IN CHARGE OF CONSTRUCTION JACKSONVILLE NORTH CAROLINA AREA BUILDING 1005, MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA 28542-5000
9. FOR INFORMATION CALL:	A. NAME Public Works Division Specifications & Estimates Section	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) Prior to Bid Opening: (919) 451-5507 After Bid Opening: (919) 451-2582	

SOLICITATION

NOTE: In advertised solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date):

NAVFAC SPECIFICATION NO. 05-86-5423

Install Vinyl Siding, Various Buildings
Camp Johnson, Montford Point Area
Marine Corps Base
Camp Lejeune, North Carolina

Contract Clauses dated January 1986

Labor Standards Provisions dated November 1979 (Rev. 8-83)

SMALL BUSINESS SET-ASIDE

NOTE: When published in commercial periodicals, this is for News Release Only.

NOT A PAID ADVERTISEMENT

11. The Contractor shall begin performance within 10 calendar days and complete it within 180 calendar days after receiving award, notice to proceed. This performance period is mandatory, negotiable. (See Block 21.)

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS?
(If "YES," indicate within how many calendar days after award in Item 12B.)

YES NO The Contractor shall furnish all bonds before being allowed to start work.

12B. CALENDAR DAYS

10 Calendar Days

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and two copies to perform the work required are due at the place specified in Item 8 by 2:00 PM (hour) local time 11 SEPTEMBER 1986 (date). If this is an advertised solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee is, is not required.

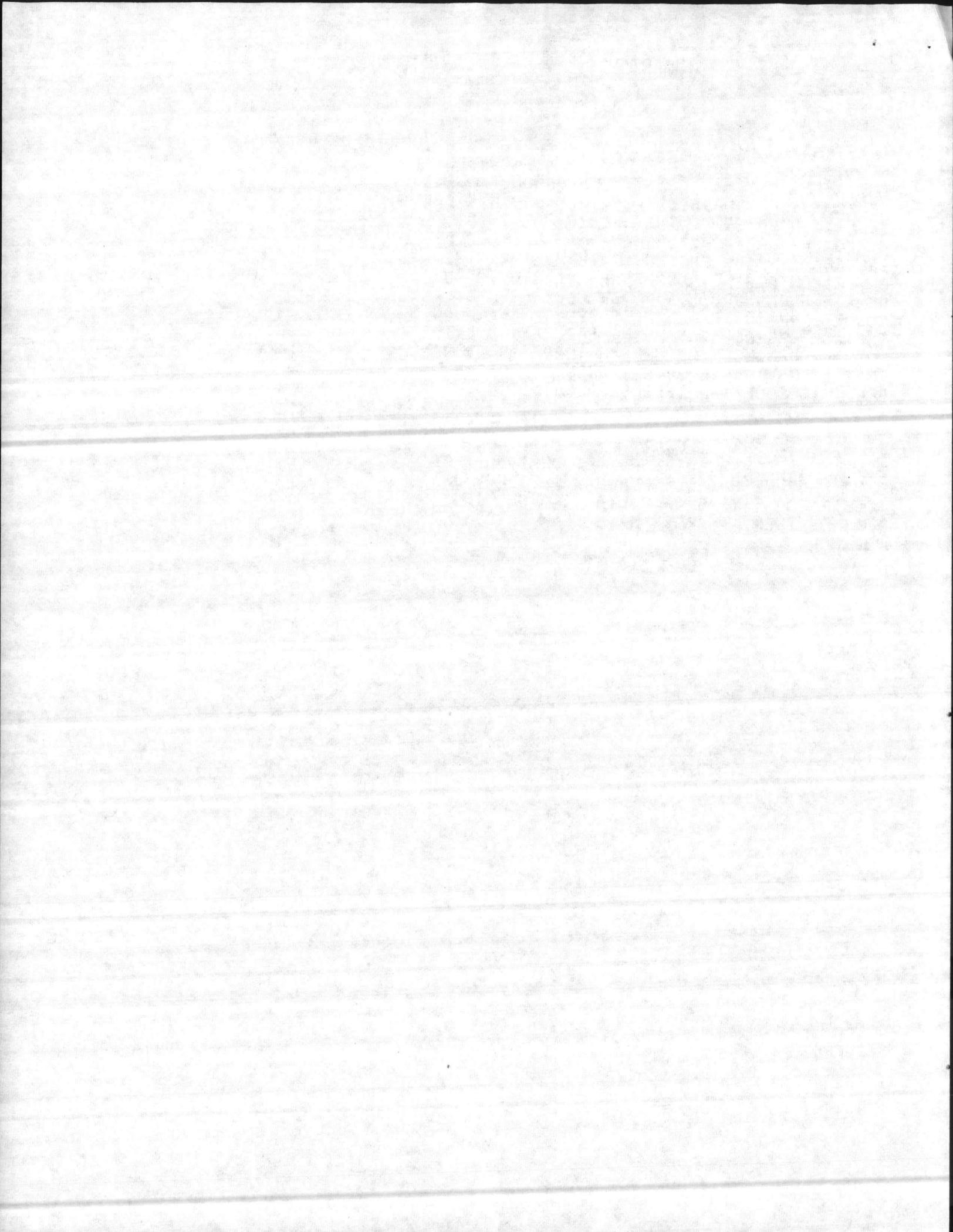
C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 60 calendar days for Government acceptance after the date offers are due will be considered nonresponsive and will be rejected.

IMPORTANT

THIS AMENDMENT MUST BE ACKNOWLEDGED WHEN YOUR BID IS SUBMITTED. FAILURE TO ACKNOWLEDGE THE AMENDMENT MAY CONSTITUTE GROUNDS FOR REJECTION OF THE BID. IF YOUR BID HAS BEEN SUBMITTED PRIOR TO THE RECEIPT OF THIS AMENDMENT, ACKNOWLEDGEMENT MAY BE MADE BY TELEGRAM, WHICH SHOULD STATE WHETHER THE PRICE CONTAINED IN YOUR SEALED BID IS TO REMAIN UNCHANGED, IS TO BE DECREASED BY AN AMOUNT, OR IS TO BE INCREASED BY AN AMOUNT. THE ACKNOWLEDGEMENT MUST BE RECEIVED PRIOR TO BID OPENING TIME UNLESS THERE IS EVIDENCE THAT IT MAY BE ACCEPTED PURSUANT TO THE PROVISIONS OF THE DEFENSE ACQUISITION REGULATIONS.

NOTE: TELEGRAMS WILL NOT BE DELIVERED TO CAMP LEJEUNE UNLESS PHYSICAL DELIVERY IS SPECIFIED AT TIME OF FILING AND SHOWING THAT DELIVERY CHARGES HAVE BEEN PAID IN ADVANCE.



AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE _____ PAGE OF PAGES _____

2. AMENDMENT/MODIFICATION NO. NO. 2	3. EFFECTIVE DATE 29 AUG 1986	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable) SPEC. 05-86-5423
6. ISSUED BY Officer in Charge of Construction Jacksonville, North Carolina Area Building 1005, Marine Corps Base Camp Lejeune, North Carolina 28542		7. ADMINISTERED BY (If other than Item 6)	

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	(f)	9A. AMENDMENT OF SOLICITATION NO. X N62470-86-B-5423
		9B. DATED (SEE ITEM 11) 12 AUGUST 1986
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE _____	FACILITY CODE _____	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
 (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

INSTALL VINYL SIDING, VARIOUS BUILDINGS,
CAMP JOHNSON, MONTFORD POINT AREA
at the MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

SPECIFICATION

CONTENTS.

Insert the following new Section, which is included in this Amendment and shall be inserted into the Specification:

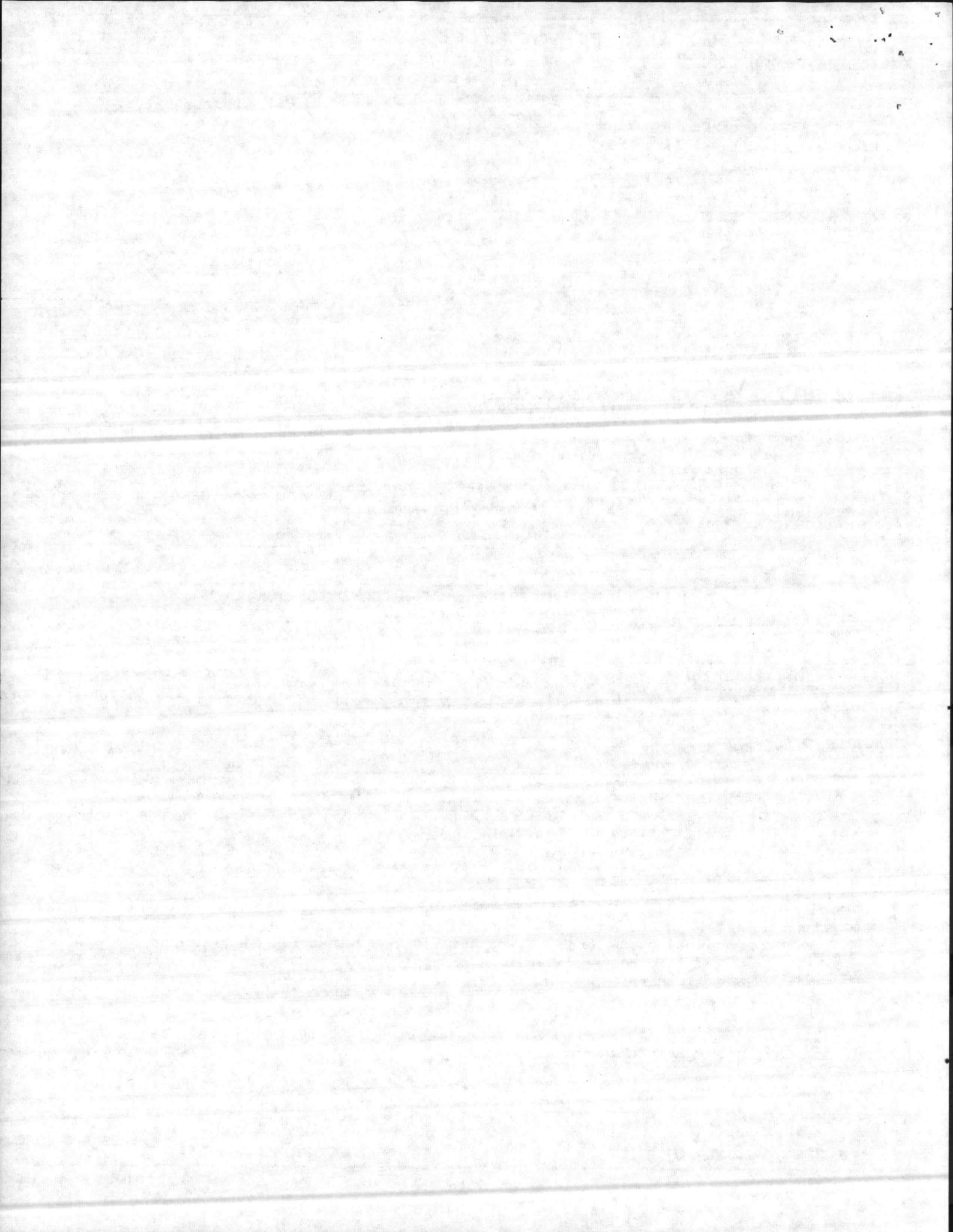
"02081. Removal and Disposal of Nonfriable Asbestos Materials"
(continued)

LHP

[Signature]

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) T. L. HUGUELET, CDR, CEC, USN for COMNAVFACENGCOM		
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)	16C. DATE SIGNED 29 AUG 1986



DRAWINGS

NAVFAC DRAWING NO. 4132981, Sheet C-1

Drawing Index: Title of Sheet A-1: Change "Bldg. M-102" to read "Bldg. M-103".

NAVFAC DRAWING NO. 4132982, Sheet A-1

Typical Wall Section: After "Provide 15 lb. felt underlayment", add the following: "over existing sheathing".

General Notes - Bldg. 103

Note 1: At the end of this Note, add the following: "as indicated".

Note 3: After this Note, insert the following:

"4. Plywood sheathing to be applied to shed portions of bldg. only as shown in Details C and D on this Sheet"

NAVFAC DRAWING NO. 4132984, Sheet A-3

Rear Elevation - Bldg. M-104: Change "Remove existing asbestos and ... " to read "Remove existing asbestos-cement board and ... "

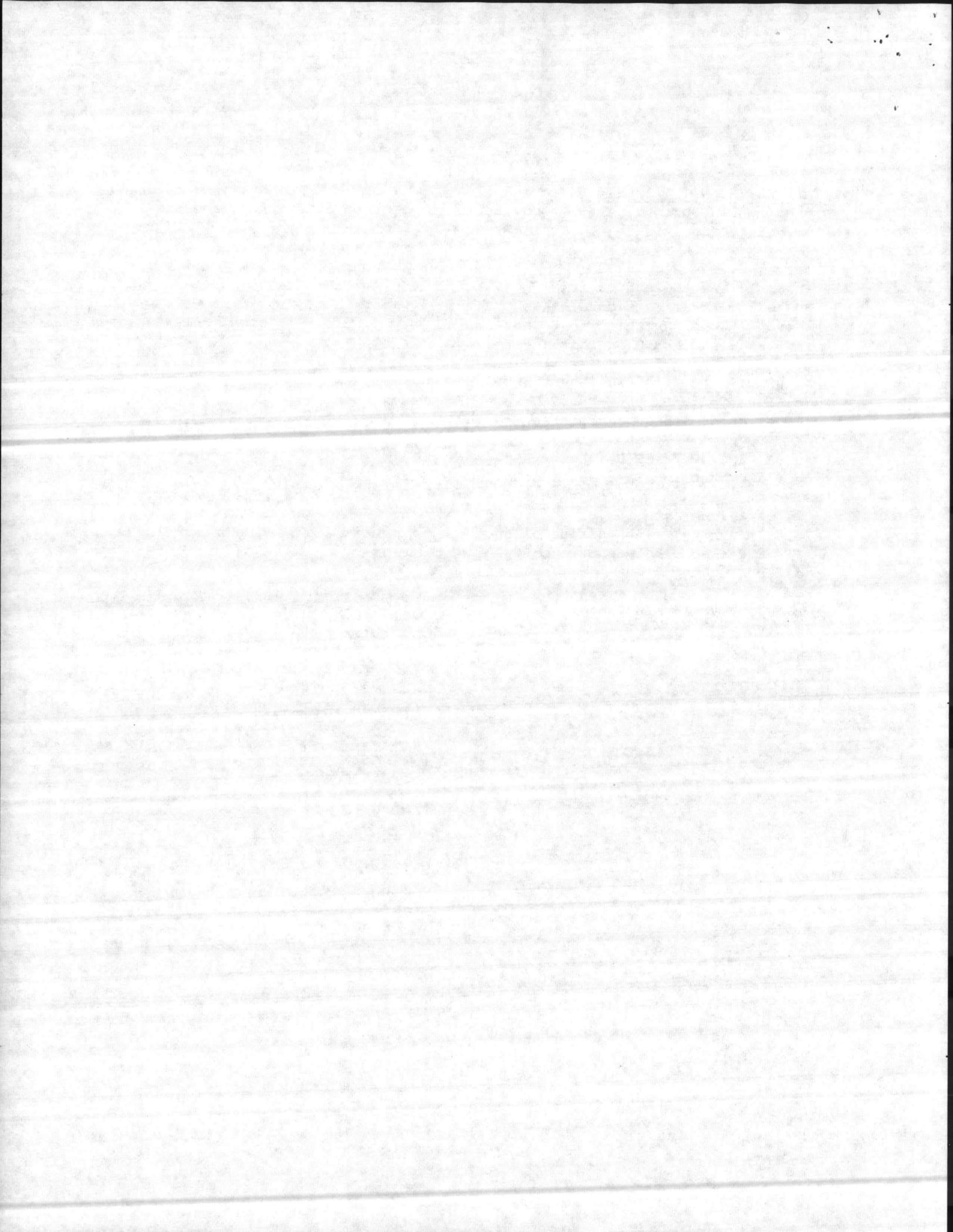
NAVFAC DRAWING NO. 4132985, Sheet A-4

Center of Sheet in "Eave Section C", add the following:

"NOTE: The sequence of materials is:

- 1) 1/2-inch exterior gypsum board sheath nailed to existing studs
- 2) 2-inch by 2-inch strips aligned with and nailed to exterior studs
- 3) EPS placed between 2-inch by 2-inch strips
- 4) PVC siding"

Section @ Eave D: In "Note: See Eave Sect. ...", add a "C" in the top half of detail circle.



SECTION 02081

REMOVAL AND DISPOSAL OF NONFRIABLE ASBESTOS MATERIALS

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1.1 Federal Standard (Fed. Std.):

Fed. Std. 595 Colors (& Notice 4)

1.1.2 Military Standard (Mil. Std.):

MIL-STD-101B Color Code for Pipelines and for
Compressed-Gas Cylinders

1.1.3 Code of Federal Regulations (CFR) Publications:

29 CFR Asbestos
1910.1001

29 CFR Respiratory Protection
1910.134

29 CFR Specifications for Accident Prevention
1910.145 Signs and Tags

40 CFR 61,
Subpart A General Provisions

40 CFR 61,
Subpart M National Emission Standard for Asbestos

1.1.4 American National Standards Institute (ANSI) Publication:

Z88.2-80 Practices for Respiratory Protection

1.1.5 Underwriters Laboratories Inc. (UL) Publication:

586-77 Standard for Test Performance of High
(R82) Efficiency, Particulate, Air Filter Units

1.2 REMOVAL AND DISPOSAL:

1.2.1 Definitions:

1.2.1.1 Airlock: A system for permitting ingress or egress without permitting air movement between a contaminated area and uncontaminated area, typically consisting of two curtained doorways at least 6 feet apart.

1.2.1.2 Amended Water: Water containing a wetting agent or surfactant.

1.2.1.3 Area Monitoring: Sampling of asbestos fiber concentrations within the asbestos control area and outside the asbestos control area which is representative of the airborne concentrations of asbestos fibers which may reach the breathing zone.

1.2.1.4 Asbestos: The term asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.

1.2.1.5 Asbestos Control Area: An area where asbestos removal operations are performed which is isolated by physical boundaries to prevent the spread of asbestos dust, fibers, or debris.

1.2.1.6 Asbestos Fibers: Asbestos fibers having an aspect ratio of 3:1 and longer than 5 micrometers.

1.2.1.7 Ceiling Concentration: Personnel shall not be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers (longer than 5 micrometers) per cubic centimeter of air.

1.2.1.8 Asbestos Material:

1.2.1.8.1 Friable Asbestos Material: Material that contains more than 1 percent asbestos by weight which can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

1.2.1.8.2 Nonfriable Asbestos Material: Material that contains asbestos in which the fibers have been locked in by a bonding agent, coating, binder, or other material so that the asbestos is well bound and may not release fibers in excess of the asbestos control limit during any appropriate use, handling, storage, transportation, or processing. Nonfriable asbestos material is considered hazardous during removal and disposal procedures.

1.2.1.9 HEPA Filter Equipment: High efficiency particulate absolute (HFPA) filtered vacuuming equipment with a UL 586 filter system capable of collecting and retaining asbestos fibers. Filters shall be of 99.99 percent efficiency for retaining fibers of 0.3 micrometers or larger.

1.2.1.10 Personal Monitoring: Sampling of asbestos fiber concentrations within the breathing zone of an employee.

1.2.1.11 Time Weighted Average (TWA): Three samples are required to establish the 8-hour TWA. The TWA is an 8-hour time weighted average of airborne concentration of fibers (longer than 5 micrometers) per cubic centimeter of air.

1.2.1.12 Asbestos Permissible Exposure Limit: 0.5 fibers (longer than 5 micrometers) per cubic centimeter as an 8-hour time weighted average.

1.2.1.13 Clean Room: An uncontaminated area or room which is part of the worker decontamination enclosure system, with provisions for storage of workers' street clothes and protective equipment.

1.2.1.14 Curtained Doorway: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms, typically constructed by placing two overlapping sheets of plastic sheet over an existing or temporarily framed doorway, securing each along the top of the doorway, securing the vertical edge of one sheet along one vertical.

1.2.1.15 Decontaminated Enclosure System: A series of connected rooms, with curtained doorways between any two adjacent rooms, for the decontamination of workers or of materials and equipment.

1.2.1.16 Equipment Decontamination Enclosure System: A decontamination enclosure system for materials and equipment, typically consisting of a designated area of the work area, a washroom, a holding area, an uncontaminated area, and an airlock.

1.2.1.17 Equipment Room: A contaminated area or room which is part of the worker decontamination enclosure system, with provisions for storage of contaminated clothing and equipment.

1.2.1.18 Holding Area: A chamber between the washroom and an uncontaminated area in the equipment decontamination enclosure system. The holding area comprises an airlock.

1.2.1.19 Negative Pressure: A local exhaust system capable of maintaining a minimum pressure differential of minus 0.2 inch of water column relative to adjacent unsealed areas.

1.2.1.20 Shower Room: A room between the clean room and the equipment room in the worker decontamination enclosure system, with hot and cold running water and suitably arranged for complete showering during decontamination. The shower room comprises an airlock between contaminated and clean areas.

1.2.1.21 Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

1.2.1.22 Washroom: A room between the work area and the holding area in penetration, thus reducing the quantity of water required for a given operation or area.

1.2.1.23 Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by afterwards disposing of these cleaning tools as asbestos-contaminated waste.

1.2.1.24 Work Area: Any area indicated on the Drawings as asbestos abatement areas or as areas containing friable asbestos material.

1.2.1.25 Worker Decontamination Enclosure System: A decontamination enclosure system for workers, typically consisting of a clean room, a shower room, and an equipment room.

1.2.2 Description of Work: The work covered by this section includes the handling of nonfriable materials containing asbestos which are encountered during removal and demolition operations and the incidental procedures and equipment required to protect workers and occupants of the building or area, or both, from contact with airborne asbestos fibers. The work also includes the disposal of the removed asbestos-containing materials. Perform work in accordance with 29 CFR 1910.1001, 40 CFR 61, Subparts A and M, and the requirements specified herein. The asbestos work includes the demolition and removal of asbestos insulation on hot and cold water pipes, steam lines and all debris on the ground located in the crawl space and interior chase walls.

1.2.3 Title to Materials: Materials resulting from demolition work, except as specified otherwise, shall become the property of the Contractor and shall be disposed of as specified herein.

1.2.4 Protection of Existing Work to Remain: Perform demolition work without damage or contamination of adjacent work. Where such work is damaged or contaminated, restore work to the original condition.

1.2.5 Medical Requirements: 29 CFR 1910.1001.

1.2.5.1 Medical Examinations: Before exposure to airborne asbestos fibers, provide workers with a comprehensive medical examination as required by 29 CFR 1910.1001. This examination is not required if adequate records show the employee has been examined as required by 29 CFR 1910.1001 within the past year. The same medical examination shall be given on an annual basis to employees engaged in an occupation involving asbestos fibers and within 30 calendar days before or after the termination of employment in such occupation. Specifically identify x-ray films of asbestos workers to the consulting radiologist, and mark medical record jackets with the word "ASBESTOS."

1.2.5.2 Medical Records: Maintain complete and accurate records of employees' medical examinations for a period of 20 years after termination of employment and make records of the required medical examinations available for inspection and copying to: The Assistant Secretary of Labor for Occupational Safety and Health, The Director of The National Institute for Occupational Safety and Health (NIOSH), authorized representatives of either, and an employee's physician upon the request of the employee or former employee.

1.2.6 Training: Within 3 months prior to assignment to asbestos work, each employee shall be instructed for a minimum of 8 hours by the industrial hygienist with regard to the hazards of asbestos, safety and health precautions, and the use and requirements for protective clothing and equipment including respirators. Fully cover engineering and other hazard control techniques and procedures.

1.2.7 Permits and Notifications: Obtain necessary permits in conjunction with asbestos removal, hauling, and disposition. Notification of such actions as may be required by federal, state, regional, and local authorities will be accomplished by the Commanding General, Marine Corps Base, Camp Lejeune, North Carolina.

1.2.8 Safety and Health Compliance: In addition to detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of federal, state, regional, and local authorities regarding handling, storing, transporting, and disposing of asbestos waste materials. Comply with the applicable requirements of the current issue of 29 CFR 1910.1001 and 40 CFR 61, Subparts A and M. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where specification requirements and referenced documents vary, the most stringent requirement shall apply.

1.2.9 Respirator Program: Establish a respirator program as required by ANSI Z88.2 and 29 CFR 1910.134.

1.2.10 Industrial Hygienist: The industrial hygienist shall be certified by the American Board of Industrial Hygiene.

1.3 SUBMITTALS: Submittals shall be submitted to and approved by the Contracting Officer prior to commencing work involving asbestos materials.

1.3.1 Manufacturer's Data:

- a. Local exhaust equipment
- b. Vacuum equipment
- c. Respirators
- d. Pressure differential monitor

1.3.2 Manufacturer's Certificates of Compliance:

- a. Local exhaust and vacuum filters
- b. Respirators

1.3.3 Asbestos Plan: Submit a detailed plan of the work procedures to be used in the removal and demolition of materials containing asbestos. The plan shall be prepared, signed, and sealed, including certification number and date, by the certified industrial hygienist. Such plan shall include a sketch showing the location, size, and details of asbestos control areas, location and details of the change rooms, layout of change rooms, and locations of local exhaust equipment. The plan shall also include interface of trades involved in the construction, sequencing of asbestos-related work, disposal plan, type of wetting agent to be used, air monitoring, respirators, protective equipment, pressure differential monitoring device, and a detailed description of the method to be employed in order to control pollution. The plan shall be approved prior to the start of any asbestos work. Prior to beginning work, the Contractor and certified industrial hygienist shall meet with the Contracting Officer to discuss in detail the asbestos plan, including work procedures and safety precautions.

1.3.4 Testing Laboratory: Submit the name, address, and telephone number of the testing laboratory selected to perform the monitoring, testing, and reporting of airborne concentrations of asbestos fibers along with certification that persons counting the samples have been judged proficient by successful participation within the last year in the National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing (PAT) Program.

1.3.5 Industrial Hygienist: Submit the name, address, and telephone number of the industrial hygienist selected to prepare asbestos plan, direct monitoring and perform training, and a certification that the industrial hygienist is certified by the American Board of Industrial Hygiene, including certification number and date.

1.3.6 Monitoring Results: Fiber counting shall be completed and results reviewed by the industrial hygienist within 16 hours. The industrial hygienist shall notify the Contractor and the Contracting Officer immediately of any exposures to asbestos fibers in excess of the acceptable limits. Submit monitoring results to the Contracting Officer within 3 working days, signed by the testing laboratory employee performing air monitoring, the employee that tested the sample, and the industrial hygienist. The person doing the on site air sampling is required to be a bona fide full time employee of the testing laboratory and listed on payrolls which must be submitted by the Contractor.

1.3.7 Notification: Notify the Contracting Officer 20 working days prior to the start of asbestos work.

1.3.8 Landfill: The base sanitary landfill shall be used for disposal of all asbestos waste. The base sanitary landfill is approved and is available for use by the Contractor providing the following requirements are satisfied.

a. The Contracting Officer must be informed at least five working days in advance of the anticipated delivery date of the asbestos material to the landfill. On larger projects, the notification should be accompanied by a cubic yard estimate of the anticipated volume, updated weekly if the disposal period extends for more than one week. The Government will be responsible for digging the trenches and covering the debris at the end of the working day. Debris will not be accepted before 9:00 AM or after 3:00 PM, except in an emergency situation.

b. Asbestos will be accepted only if double bagged in heavy-duty plastic bags which are clearly marked "Asbestos." If a Contractor desires to handle the asbestos in a manner other than double-bagging, written application, along with a description of the proposed deviation, must be submitted to the ROICC for approval.

c. Asbestos insulated piping with the asbestos insulation intact will be accepted if the following requirements are met:

- The pipe is cut in ten foot or shorter lengths.
- The ends of the insulated pipe must be thoroughly wetted and covered in a double layer of plastic wrapping.
- The pipe is placed in the burial trenches in an orderly, compact fashion with the lengths of pipe all oriented in the same direction and horizontal to the bottom of the pit.

d. Asbestos disposal is restricted to one designated location in the landfill and the landfill operators must be informed of and direction each delivery. Trucks hauling asbestos must be properly covered with tarpaulins or equivalent. Trucks not covered or not covered properly must be parked until the Contracting Officer approves corrective actions.

1.3.9 Local Exhaust System: The local exhaust system shall be operated continuously, 24 hours a day, until the enclosure of the asbestos control area is removed. Pressure differential recordings for each workday shall be reviewed by the industrial hygienist and submitted to the Contracting Officer within 24 hours from the end of each workday. The industrial hygienist shall notify the Contractor and the Contracting Officer immediately of any variance in the pressure differential which could cause exposure of adjacent unsealed areas to asbestos fiber concentrations in excess of the permissible exposure limit.

1.3.10 Training: Submit certificates signed and dated by the industrial hygienist and by each employee that the employee has received training for a minimum of 8 hours by the industrial

3.1.1.2 Air Compressor: The air compressor used to supply Grade "D" Breathable Air to the Type "C" respirators shall be a heavy duty, reciprocating compressor operated by an electric motor. Gasoline or diesel engine driven compressors are not acceptable. The compressor shall be equipped with an intake filter, automatic start-stop pressure switch, and pressure gauges. The compressor shall be equipped with an alarm system (audible and light) that will function when the system is shutdown for any of the above situations. The Compressor shall have, following each stage, condensate traps, intercooler or aftercooler, and safety valves.

3.1.1.3 Air Storage System: The air system shall be capable of supplying Grade "D" Breathable Air to a full complement of workers for a minimum of one hour after compressor shutdown. The reserve "escape" capacity shall be demonstrated as follows to the satisfaction of the Contracting Officer prior to commencement of any abatement activities:

- a. The compressor shall be started and allowed to bring the system up to operating capacity.
- b. A full compliment of workers shall be connected to the system. "Full compliment" is defined as the maximum number of workers that will be simultaneously using the system during the course of the job;
- c. The compressor shall be stopped and escape timing started simultaneously;
- d. A minimum period of one hour shall elapse prior to cessation of flow of Grade "D" Breathable Air;
- e. At no time during the course of the test shall the compressor be restarted.
- f. Pressure vessels, valves, gauges, tubing, and fittings shall meet applicable ASME Codes for pressure operation.

3.1.2 Special Clothing:

3.1.2.1 Protective Clothing: Provide personnel exposed to airborne concentrations of asbestos fibers with fire-retardant, disposable protective whole body clothing, head coverings, gloves, and foot coverings. Furnish disposable plastic or rubber gloves to protect hands. Cloth gloves may be worn inside the plastic or rubber gloves for comfort, but shall not be used alone. Use tape to secure sleeves at the wrists and to secure foot coverings at the ankles.

3.1.2.2 Work Clothing: Provide cloth work clothes to wear under the disposable protective coveralls and foot coverings.

3.1.3 Change Rooms: Provide a temporary unit with a separate decontamination locker room and a clean locker room for personnel required to wear whole body protective clothing. Provide two separate lockers for each asbestos worker, one in each locker room. Keep street clothing and street shoes in the clean locker. Vacuum and remove asbestos-contaminated disposable protective clothing while still wearing respirators at the boundary of the asbestos

work area, and seal in impermeable bags or containers for disposal. Do not remove disposable protective clothing in the decontamination room. Remove disposable protective clothing in the decontamination locker room. Remove cloth work clothing in the decontamination room. Tag and bag cloth work clothes for laundering and keep work shoes in the decontamination locker. Do not wear work clothing between home and work. Locate showers between the decontamination locker room and the clean locker room, and require employees to shower before changing into street clothes. Clean asbestos-contaminated work clothing in accordance with 29 CFR 1910.1001. Change rooms shall be directly adjacent to the asbestos control area.

3.1.4 Eye Protection: Provide goggles for personnel engaged in asbestos operations when the use of a full face respirator is not required.

3.1.5 Caution Signs and Labels: Provide [bilingual] caution signs at approaches to asbestos control areas containing concentrations of airborne asbestos fibers. Locate signs at such a distance that personnel may read the sign and take the necessary protective steps required before entering the area. Provide labels and affix to asbestos materials, scrap, waste, debris, and other products contaminated with asbestos.

3.1.5.1 Caution Sign: Vertical format conforming to 29 CFR 1910.145, paragraph (d)(4), minimum 20 by 14 inches; spacing between lines shall be at least equal to the height of the upper of any two lines. Display the following legend in the lower panel:

<u>Legend</u>	<u>Notation</u>
Asbestos	1 inch Sans Serif Gothic or Block
Dust Hazard	3/4 inch Sans Serif Gothic or Block
Avoid Breathing Dust	1/4 inch Gothic
Wear Assigned Protective Equipment	1/4 inch Gothic
Do Not Remain in Area Unless Your Work Requires It	1/4 inch Gothic
Breathing Asbestos Dust May Be Hazardous To Your Health	14 point Gothic

3.1.5.2 Caution Labels: Provide labels of sufficient size to be clearly legible, displaying the following legend:

CAUTION

CONTAINS ASBESTOS FIBERS

AVOID CREATING DUST

BREATHING ASBESTOS DUST MAY
CAUSE SERIOUS BODILY HARM

3.1.6 Tools and Local Exhaust System: Provide a local exhaust system in the asbestos control area. Filters on vacuums and exhaust equipment shall be UL 586-labeled absolute HEPA filters. Local exhaust equipment shall be sufficient to maintain a minimum pressure differential of minus 0.02 inch of water column relative to adjacent, unsealed areas. Provide a manometer-type negative pressure differential monitor with minor scale divisions of 0.02 inch of water and accuracy within plus or minus 1.0 percent. Calibrate the manometer daily as recommended by the manufacturer. Provide manually recorded manometer readings of the pressure differential between the asbestos control area and adjacent unsealed areas at the beginning of each workday and every 2 working hours thereafter. The local exhaust system shall be operated continuously, 24 hours a day, until the asbestos control area enclosure is removed. Replace filters as required to maintain the efficiency of the system. The building heating, ventilating, and air-conditioning (HVAC) system shall not be used as the local exhaust system for the asbestos control area.

3.2 DECONTAMINATION ENCLOSURE SYSTEMS:

3.2.1 General: Prior to any asbestos abatement work, construct a Worker Decontamination Enclosure System contiguous to each Work Area consisting of a totally enclosed Equipment Room, Shower Room, Air Locks, and Clean Room.

3.2.1.1 Build suitable framing or use existing rooms, with the Contracting Officer's approval, connected with framed-in tunnels if necessary; line with 6 mil plastic; seal with tape at all lap joints in the plastic for all enclosures and decontamination enclosure system rooms. A schematic diagram of typical decontamination unit is enclosed at the end of this section.

3.2.1.2 Access between contaminated and uncontaminated rooms or areas shall be through an airlock. In all cases, access between any two rooms within the decontamination enclosure systems shall be through a curtained doorway.

3.2.2 Equipment Room: Provide an Equipment Room with two curtained doorways, one adjacent to the work area and one adjacent to the shower room. Cover the walls and ceilings with 4 mil, minimum thickness, plastic sheeting. Cover the floor with two layers of 6 mil. plastic sheeting. Provide a double 6 mil disposable bag in this area to allow workers to dispose of their gear prior to entering the shower area. This area will allow the Contractor to store any equipment when not in use.

3.2.3 Shower Room: Provide a Shower Room with two curtained doorways, one to the equipment room and one to an airlock between the shower room and the clean room. The shower room must contain at least one shower with hot and cold water. Pay careful attention to the shower enclosure to ensure against leaking of any kind. Ensure a supply of soap at all times in the shower room. Existing showers may not be used in conjunction with the decontamination system and procedures. Provide a portable shower facility. Water must be filtered and disposed of as contaminated waste.

3.2.4 Air-Lock: Construct an air lock between the Shower Room and the Clean Room. An air lock consists of an area at least 6 feet wide with double curtained doors. One door must always remain sealed. Construct air-locks at entrances to and exits from the work area.

3.2.5 Clean Room: Provide a Clean Room with one curtained doorway into the air-lock and one entrance or exit to noncontaminated areas of the building. The Clean Room must have sufficient space for storage of the workers' street clothes, towels, and other noncontaminated items.

3.3 NEGATIVE AIR PRESSURE: Establish negative air pressure in the work area by installation of High Efficiency Particulate Air (HEPA) filter air purifying devices. Comply with ANSI Z9.2, Local Exhaust Ventilation Requirements. Maintain system in operation 24 hours per day until decontamination of the work area is completed and area has been certified clean by air monitoring tests and visual inspections. Discharge of asbestos fibers to the outside of the buildings will not be permitted.

3.3.1 Size negative air pressure system(s) to provide one air change every 15 minutes for the area under negative pressure. Locate the exhaust unit(s) so that makeup air enters the work area primarily through the decontamination unit and traverses the work area as much as possible. The intent is to provide the air change specified in each work area (room), not just the specified negative pressure. Place the end of the unit or its exhaust duct through an opening in the plastic barrier or wall covering. Seal the plastic around the unit or duct with tape. Whenever possible, the units shall exhaust to the outside of the building.

3.3.2 The system shall maintain an air pressure differential of 0.2 inch of water. Test the negative pressure system prior to any abatement actions to insure that the 0.2 inch differential is present. The Contracting Officer may require the use of ventilation smoke tubes to check the system performance.

3.3.3 Equip the system with an automatic shutdown that will stop the fan in the event of a rupture in the HEPA filter or blocked air discharge. Equip the system with warning lights and/or alarms to indicate too high of a pressure drop across the filters or too low of a pressure drop across the filters. Equip the system with a non-resettable elapsed time meter to indicate the total accumulated hours of operation. Equip the unit with a magnehelic gauge or manometer to measure the pressure drop across the filters.

3.3.4 Should the exhaust unit cease operation for any reason, asbestos abatement should cease immediately. Under no circumstances should any asbestos abatement take place without having the negative air pressure system fully operational.

3.3.5 The final filter in each unit must be the HEPA type. Each filter shall have a standard nominal rating of at least 1100 dfm with a maximum pressure of 1.0 inch water clean resistance. Completely seal the filter media on all edges with a structurally rigid frame and cross-braced as required. Locate a continuous rubber gasket between the filter and the filter housing to form a tight seal. Provide gasket material which is a minimum of 1/4 inch thick and 3/4 inch wide.

3.3.5.1 Each filter shall be individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with an 0.3 micron dioctylphthalate (DOP) particles. Testing shall be in accordance with Military Standard Number 282. Each filter shall bear a UL 586 label to indicate ability to perform under specified conditions.

3.3.5.2 Each HEPA filter must be marked with the name of the manufacturer serial number, air flow rating, efficiency and resistance, and the direction of test air flow.

3.3.5.3 All filters must be accessible from the work area or contaminated side of the barrier.

3.4 WORKER PROTECTION PROCEDURES: Each worker and authorized visitor shall, upon entering the job site, remove street clothes in the clean change room and put on a respirator and clean protective clothing before entering the equipment room or the work area.

3.4.1 All workers shall remove gross contamination before leaving the work area. All clothing (coveralls, head covers, boots, etc.) shall be removed and properly disposed of before leaving equipment room. Naked, with the exception of their respirators, the workers

shall proceed to the shower room. Under the shower, respirators will be removed and cleaned. Cleaned respirators will be placed in suitable clean plastic bags and carried by employees to clean room. Soap, towels, etc., shall be furnished by the Contractor. The Contractor shall maintain proper sanitary conditions.

3.4.2 Following showering and drying off, each worker and authorized visitor shall dispose of towels as contaminated waste, and proceed directly to the clean change room and dressing clean clothes at the end of each day's work, or before eating, smoking, or drinking. Before re-entering the work area from the clean change room, each worker and authorized visitor shall put on the applicable respirator and shall dress in clean protective clothing, except that workers intending to rewear contaminated protective clothing stored in the equipment room shall enter the equipment room wearing only respirators.

3.4.3 Contaminated work footwear shall be stored in the equipment room when not in use in the work area. Upon completion of asbestos abatement, dispose of footwear as contaminated waste. Store contaminated protective clothing in the equipment room for reuse or place in receptacles for disposal with other asbestos contaminated materials.

3.4.4 Workers removing waste containers from the equipment decontamination enclosure shall enter the holding area from outside wearing a respirator and dressed clean coveralls. No worker shall use this system as a means to leave or enter the washroom or the work area.

3.4.5 Workers shall not eat, drink, smoke, or chew gum or tobacco at the worksite except in the established clean room.

3.4.6 Workers shall be fully protected with respirators and protective clothing immediately prior to the first disturbance of asbestos-containing or contaminated materials and until final clean-up is completed.

3.4.7 General: Clean external surfaces of contaminated containers and equipment thoroughly by wet sponging and HEPA vacuum before moving such items into the equipment decontamination enclosure system washroom for final cleaning and removal to uncontaminated areas. Ensure that personnel do not leave work areas through the equipment decontamination enclosure system.

3.5 WORK PROCEDURE: Perform asbestos-related work in accordance with 29 CFR 1910.1001 and as specified herein. Use wet removal procedures. Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking shall not be permitted in the asbestos control area. Personnel of other trades not engaged in the removal and demolition of asbestos shall not be exposed at any time to airborne concentrations of asbestos unless the personnel protection provisions of this specification are complied with by the trade personnel.

3.5.1 Preparation of the Work Area:

3.5.1.1 General: Seal off the work area by erecting double barriers of polyethylene sheeting at all entrances and exits to the Work area. Use 6 mil polyethylene sheeting. The distance between each barrier must measure at least six feet and the work area must always be sealed off by one sheet whenever the area is entered or exited. Weight the exit and entrance sheets so that the sheets close quickly after being released. These sheets, when closed, must overlap the fixed barriers so as to seal the openings.

3.5.1.2 Furnishings: Furniture and equipment will be removed from the area of work by the Government before asbestos work begins.

3.5.1.3 Electric Power: Shut down electric power. Provide temporary power and lighting and ensure safe installation of temporary power sources and equipment per applicable electrical code requirements. Provide 24 volt safety lighting; provide ground-fault interrupter circuits as power source for electrical equipment.

3.5.1.4 HVAC: Shut down and isolate heating, cooling, ventilating air systems in the contaminated areas to prevent contamination and fiber dispersal to other areas of the structure. During the work, seal vents within the work area with tape and plastic sheeting.

3.5.1.5 Fire Exits: Maintain emergency and fire exits from the Work Areas, or establish alternative exits satisfactory to the local fire officials. Coordinate project with local fire and police departments.

3.5.1.6 Asbestos Control Area Requirements: Seal all openings in areas where the release of airborne asbestos fibers is possible with 6 mil elastic. This includes, but is not limited to, windows, vents, HVAC ducts, and doors. All fixed equipment (including piping and lights) in the work area that does not have insulation to be removed from it, shall be wrapped with two layers of 6 mil plastic, and sealed with tape. An asbestos control area shall be established with the use of curtains, portable partition, or other enclosures to prevent the escape of asbestos fibers from the contaminated asbestos control area. Control area development shall include protective covering of walls and ceiling with a continuous membrane of two layers of minimum 4 mil plastic sheet sealed with tape to prevent water or other damage. Provide two layers of 6 mil plastic sheet over floors (or soil in crawl spaces) and extend a minimum of 12 inches up wall. Seal all joints with tape. In those buildings in which the asbestos control area is the attic, two layers of 6 mil plastic shall be applied to the ceiling of the building area beneath the attic. The plastic shall be sealed to the walls with tape. All openings (around pipes, lights or other ceiling mounted items) shall be securely sealed with tape. Provide a local exhaust system in the asbestos control area meeting the requirements of the paragraph entitled "Negative Air Pressure". Opening will be allowed in enclosures of asbestos control areas for the supply and exhaust of air for the local exhaust system.

3.5.1.7 Asbestos Control Area Construction: If the construction of an enclosed asbestos control area is impractical for the removal of pipes and insulation located in the crawl space. Provide a 20-foot roped off perimeter around the area where the asbestos handling procedures are performed and maintain other requirements for asbestos control areas. Also, where an enclosure is not provided, conduct personal and area monitoring of airborne asbestos fibers during the work shift at the designated limits downwind of the asbestos work area at such frequency as recommended by the industrial hygienist but not less than once every 4 hours. If the quantity of airborne asbestos fibers monitored at the designated limits at any time exceeds the permissible exposure limit or ceiling concentration, evacuate personnel in adjacent areas. If adjacent areas are contaminated, clean the contaminated areas, monitor, and visually inspect the area as specified herein.

3.6 IDENTIFICATION OF ASBESTOS-FREE INSULATION: Apply "ASBESTOS-FREE" markings to the exterior jackets of nonasbestos-insulated piping installed herein. Letter size shall be in accordance with Mil. Std. MIL-STD-101. Apply marking at maximum of 20-foot intervals. Indicate the limits of "ASBESTOS-FREE" insulation with a 1-inch wide band with attached arrow pointing in the direction of the label "ASBESTOS-FREE." Paint markings in orange, No. 12246 of Fed. Std. 595, and as specified in MIL-STD-101. The Government shall have the option to perform independent monitoring.

3.7 MILITARY POLICE AND FIRE DEPARTMENTS: Before starting actual removal of the asbestos material, notify the local Military Police and fire departments as to the dangers of entering the work area. Make every effort to help these agencies form plans of action should their personnel need to enter the contaminated area, including decontamination.

3.8 JOB CONDITIONS:

3.8.1 General: Do not commence asbestos abatement work until:

- (1) Arrangements have been made for disposal of waste at an acceptable site.
- (2) Arrangements have been made for containing and disposal of wastewater resulting from wet stripping.
- (3) Work areas and decontamination enclosure systems and parts of the building required to remain in use are effectively segregated.
- (4) Tools, equipment, and material waste receptors are on hand.
- (5) Arrangements have been made for building security.
- (6) All other preparatory steps have been taken and applicable notices posted and permits obtained.
- (7) The decontamination enclosure system has been inspected and approved by the Contracting Officer.

3.9 ASBESTOS HANDLING PROCEDURES:

3.9.1 Removal From Equipment: Asbestos-contaminated items designated for disposal can be disposed of as asbestos waste with the asbestos material in-place by completely coating the items with an asbestos sealer at the demolition site before removing the items from the asbestos control area. For equipment that is not designated for disposal, spray the asbestos-containing materials with amended water, using spray equipment capable of providing a "mist" application to inhibit release of airborne fibers. Saturate the material sufficiently to keep all surfaces of removed sections wet. Spray the asbestos material repeatedly during the work process to maintain wet condition and to minimize asbestos fiber dispersion. Remove the saturated asbestos material in small sections. As it is removed, pack the material in sealable plastic bags of double 6 mil thickness minimum and place in labeled containers for transport. After removal of asbestos material, all surface shall be wire-brushed and wet cleaned to remove all visible material. Surfaces being cleaned must be kept wet during wire-brushing.

3.9.1.1 Pipe Insulation: All pipes shall be removed with the asbestos insulation in place by wrapping the entire length of pipe and associated insulation with double thickness 6 mil plastic secured with duct tape. Cut insulation and piping simultaneously into lengths suitable for transportation to disposal area, but no greater than 10 feet in length. Continuously wet the cutting site during the process. As soon as length of pipe is completely cut loose, cover exposed ends with double thickness 6 mil plastic secured with duct tape. If the pipe is to remain in service, the removed pipe must be replaced in accordance with Section 15600 of this Specification, with a pipe of the same size that is removed.

3.9.1.2 Exposed Pipe Insulation Edges: Contain edges of asbestos insulation to remain that is exposed by a removal operation. Wet and cut the rough ends true and square with sharp tools and then encapsulate the edges with a 1/4 inch thick layer of insulating cement troweled to a smooth hard finish. When cement is dry, lag the end with a layer of fiberglass cloth, overlapping the existing ends by 4 inches. When insulating cement and cloth is an impractical method of sealing a raw edge of asbestos, take appropriate steps to seal the raw edges as approved by the Contracting Officer.

3.9.1.3 Attic Insulation: In those buildings indicated on the Drawings, attic insulation consisting of any combination of blown-in or batt fiberglass or rockwool material, has been contaminated with asbestos material, and is to be removed as contaminated asbestos material. The insulation material shall be wet with a fine mist of amended water. The material shall be placed immediately in double thickness 6 mil plastic bags for disposal as asbestos waste.

3.9.1.4 Contaminated Soil: In those buildings so designated on the Drawings, asbestos materials are located in the building crawl spaces and deterioration of the asbestos material has resulted in contamination of the soil under the building. Under the entire area of these buildings, 4 inches of soil must be removed and disposed of as asbestos material. The contaminated soil shall be placed in double thickness 6 mil plastic bags in the asbestos control area. The soil shall not be removed until all other asbestos removal has been completed in the crawl space. Removal of soil shall occur prior to clean-up operations. All debris in the crawl space shall be disposed of with the soil as asbestos material. Workers shall be equipped with "Type C" respirators and protective clothing during the removal of soil and debris. If asbestos materials are still visible after the top 4 inches of soil is removed, remove an additional 2 inches after approval of the Contracting Officer.

3.9.1.5 Handling of Contaminated Material: Handle asbestos-containing materials carefully and deliberately. Do not allow asbestos containing material to dry out or collect on the floors. As it is removed, pack the material in containers for transport. Do not allow material to dry out prior to insertion into the container. Do not leave water-soaked fallen material out of bags overnight, or for more than four hours on hot days, to prevent loss of its water content due to evaporation. Mark bags and drums with the labels prescribed by the EPA, OSHA, or regulations referenced in these specifications. Clean the outside of all containers before leaving the work area.

3.9.1.6 Seal Filled Containers: Place caution labels on containers in accordance with OSHA regulations 29 CFR 1910.1001 (g) (2). Clean external surfaces of containers thoroughly by wet sponging in the designated area of the work area which is part of the equipment decontamination enclosure system. Move containers to washroom, wet clean each container thoroughly, and move to holding area pending removal to uncontaminated areas. Ensure that containers are removed from the holding area by workers properly protected who have entered from uncontaminated areas dressed in clean coveralls. Ensure that workers do not enter from uncontaminated areas into the washroom or the work area without passing through the decontamination enclosure system. Ensure that contaminated workers do not exit the work area through the equipment decontamination enclosure system.

3.9.1.7 Decontamination of the Work Area:

3.9.1.7.1 General: Maintain premises and public properties free from accumulation of waste, debris, and rubbish, caused by operations. Remove visible accumulations of asbestos material and debris. Wet clean all surfaces within the work area. Remove the plastic sheets from walls, ceilings, and floors only. Take proper care in folding up plastic sheeting to minimize dispersal of residual asbestos containing debris. Leave the windows, doors, and HVAC vents sealed. Maintain HEPA filtered negative air pressure systems, air filtration and decontamination enclosure systems in service.

3.9.1.7.2 Cleaning: Clean all surfaces in the work area and any other contaminated areas with water and with HEPA filtered vacuum equipment. After cleaning the work area, wait 24 hours to allow for settlement of dust, and again wet clean and clean with HEPA filtered vacuum equipment all surfaces in the work area. Wait 24 hours and perform a third cleaning. After completion of the third cleaning operation, perform a complete visual inspection of the work area to ensure that the work area is free of visible asbestos debris. Include sealed drums and all equipment used in the work area in the cleanup and remove from work areas, via the equipment decontamination enclosure system, at an appropriate time in the cleaning sequence. Conduct cleaning and disposal operations to comply with applicable ordinances and anti-pollutions laws. Do not burn or bury rubbish and waste material on job site. Do not dispose of volatile wastes in storm or sanitary drains. Do not dispose of wastes into streams or waterways.

3.9.1.7.3 Inspection: If the Contracting Officer, within 24 hours after the third cleaning, finds visible accumulations of asbestos debris in the work area, repeat the wet cleaning until the work area is in compliance, at no additional expense to the Government.

3.9.1.7.4 Sealing of Surfaces: Following removal of asbestos-containing materials and decontamination of the work areas, seal all unprotected surfaces that were not protected by plastic during the removal process to assure immobilization of any remaining fibers. Provide bulk sampling of materials, approved by the Contracting Officer, prior to removal.

3.9.2 Air Monitoring: Monitoring of airborne concentrations of asbestos fibers shall be in accordance with 29 CFR 1910.1001 and as specified herein.

3.9.2.1 Monitoring Prior to Asbestos Work: Provide area monitoring and establish the reference TWA one day prior to the masking and sealing operations for each demolition site.

3.9.2.2 Monitoring During Asbestos Work: Provide personnel and area monitoring and establish the TWA during the first exposure to airborne concentrations of asbestos. Thereafter, provided the same type of work is performed, provide area monitoring once every 4 hours during the work shift inside the asbestos control area, outside the entrance to the asbestos control area, and at the exhaust opening of the local exhaust system. If monitoring outside the asbestos control area shows airborne concentrations have reached the referenced TWA, stop all work, correct the condition(s) causing the increase, and notify the Contracting Officer immediately.

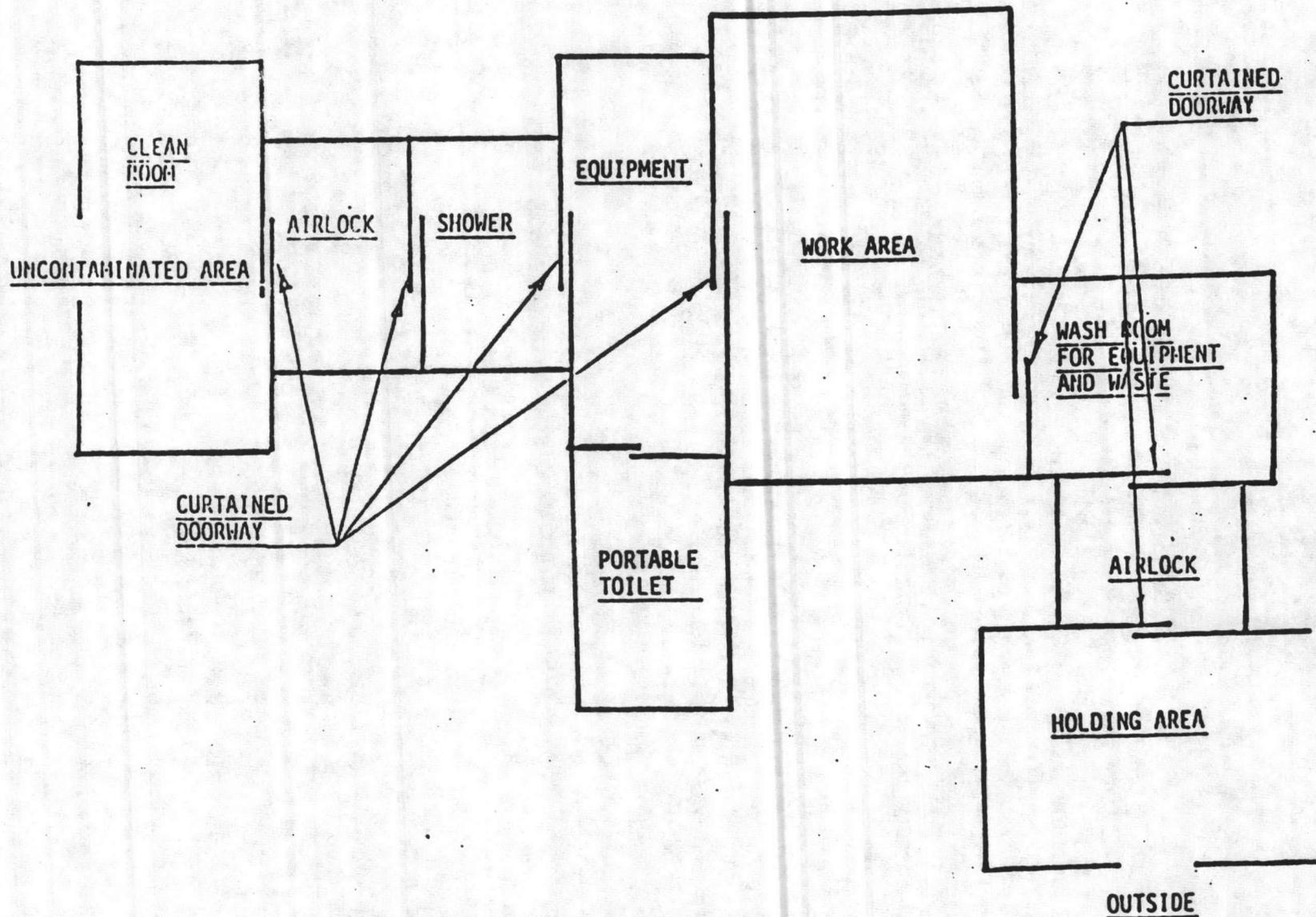
3.9.2.3 Monitoring After Final Cleanup: Provide area monitoring of asbestos fibers and establish the TWA of less than 0.1 fibers/cc after final cleanup but before removal of the enclosure of the asbestos control area. Provide area monitoring and establish the TWA 2 days

and 5 days after the enclosure of the asbestos control area is removed. Final air monitoring shall be conducted with fans in area to simulate activity and resuspend any fibers that have settled. A broom shall be used to sweep surfaces to help resuspend the fibers. The fiber counts from these samples shall be less than 0.01 fibers/cc or be not greater than the reference TWA, whichever is less. Should any of the final samplings indicate a higher value, the Contractor shall take appropriate actions to reclean the area and shall repeat the monitoring.

3.10 The Government shall have the option to perform monitoring to certify the areas are safe before entry is permitted.

3.11 SITE INSPECTION: While performing asbestos removal work, the Contractor shall be subject to onsite inspection by the Contracting Officer who may be assisted by safety or health personnel. If the work is in violation of specification requirements, the Contracting Officer will issue a stop work order to be in effect immediately and until the violation is resolved. Standby time and expenses required to resolve the violation shall be at the Contractor's expense.

[End of Section on Attached Plate]



TYPICAL DECONTAMINATION ENCLOSURE SYSTEM

End of Section

05-86-5423
 AMENDMENT NO. 2
 02081-22

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE _____ PAGE OF PAGES _____

2. AMENDMENT/MODIFICATION NO. <p style="text-align: center;">NO. 1</p>	3. EFFECTIVE DATE <p style="text-align: center;">25 AUG 1986</p>	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable) <p style="text-align: center;">SPEC. 05-86-5423</p>
6. ISSUED BY <p>Officer in Charge of Construction Jacksonville, North Carolina Area Building 1005, Marine Corps Base Camp Lejeune, North Carolina 28542</p>		7. ADMINISTERED BY (If other than Item 6) <p style="text-align: center;">CODE _____</p>	

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)	(f)	9A. AMENDMENT OF SOLICITATION NO.
	X	N62470-86-B-5423
		9B. DATED (SEE ITEM 11) 12 AUGUST 1986
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE _____		FACILITY CODE _____

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended, is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(v)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

INSTALL VINYL SIDING, VARIOUS BUILDINGS,
CAMP JOHNSON, MONTFORD POINT AREA
at the MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

CONTENTS.

Under Section 08520. Change the title to read "Aluminum Double Hung Windows"

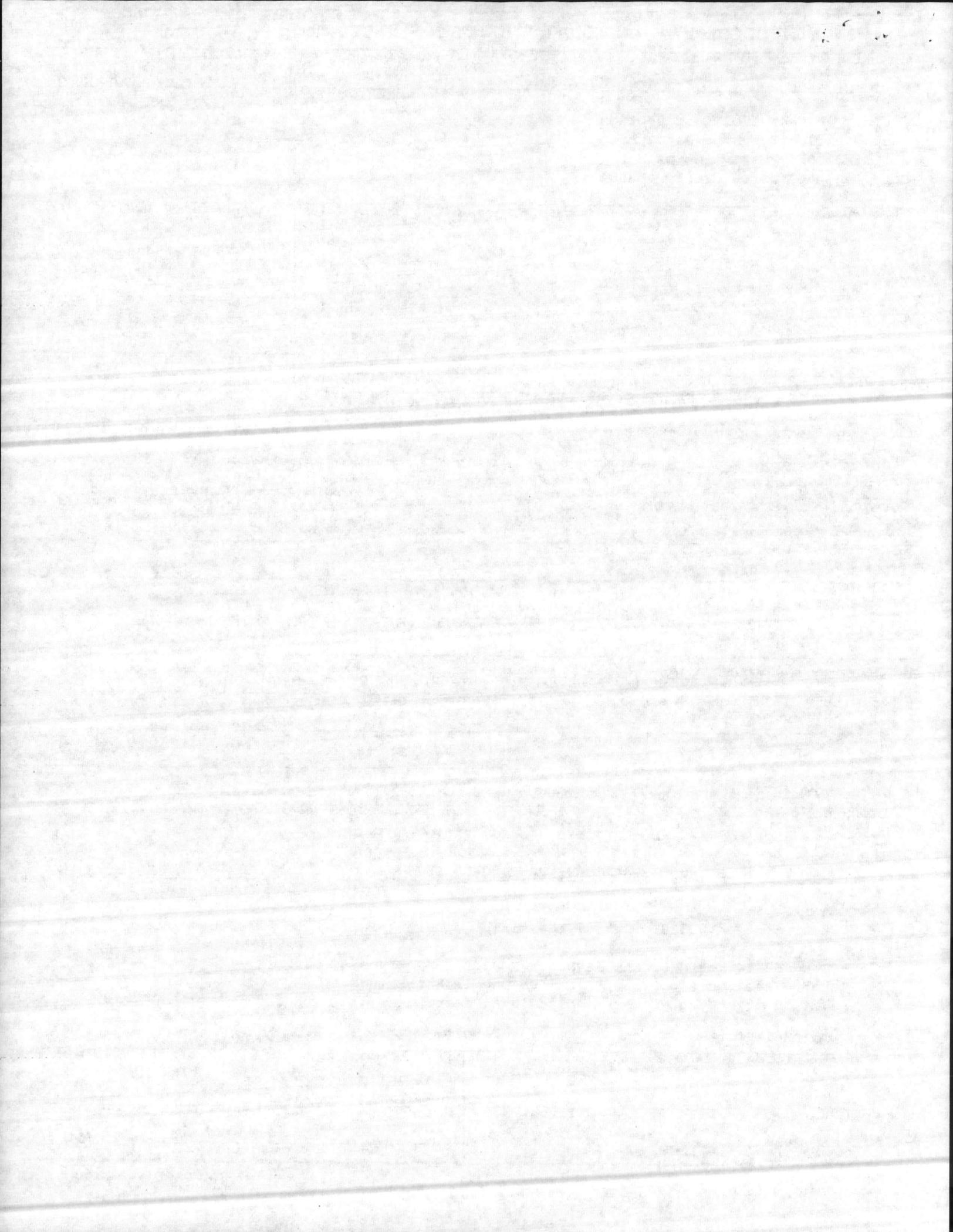
SECTION 08520. VINYL CLAD ALUMINUM DOUBLE HUNG WINDOWS

Change the title to read "Aluminum Double Hung Windows"

2.1.1 Double Hung Windows: Line 10: Delete "stepped rabbets".

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) T. L. HUGUELET, CDR, CEC, USN for COMNAVFACENGCOM		
15B. CONTRACTOR/OFFEROR <p style="text-align: center;">(Signature of person authorized to sign)</p>	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY _____ <p style="text-align: center;">(Signature of Contracting Officer)</p>	16C. DATE SIGNED 25 AUG 1986



NOTICE:

Bids to be opened at 2:00 P.M.
at the
office of
Officer in Charge Of Construction
Jacksonville, North Carolina Area
Building 1005, Marine Corps Base
Camp Lejeune, North Carolina 28542

CONTRACT N62470-86-B-5423

**NAVFAC SPECIFICATION
NO. 05-86-5423**

**INSTALL VINYL SIDING, VARIOUS BUILDINGS
CAMP JOHNSON, MONTFORD POINT AREA**

at the

MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

(BMO Project 6C68)

DESIGN BY:

**Design Branch, Public Works Division
Marine Corps Base, Camp Lejeune, North Carolina**

SPECIFICATION PREPARED BY:

**J. H. Fitch, P.E.
29 May 1986**

SPECIFICATION APPROVED BY:

**F. E. Cone, P.E., Director
Design Branch, Public Works Division**

**T. L. Huguelet, Commander, CEC, U. S. Navy
for Commander, Naval Facilities Engineering Command**

05-86-5423

April 1985

CONTENTS

This Invitation for Bids, IFB No. N62470-86-B-5423, consists of the following documents:

(I) Bidding Instructions

- (1) Solicitation, Offer and Award (Standard Form 1442 (Rev. 4-85))
- * (2) Instructions to Bidders (Construction Contract) April 1985

(II) Bid Submittal Documents

- (1) Solicitation, Offer and Award (Standard Form 1442 (Rev. 4-85))
- * (2) Representations and Certifications, April 1985
- (3) Bid Guaranty (Standard Form 24 (Rev. 4-85))

(III) Contract Documents

- (1) Solicitation, Offer and Award (Standard Form 1442 (Rev. 4-85))
- (2) Performance Bond (Standard Form 25 (Rev. 10-83))
- (3) Payment Bond (Standard Form 25A (Rev. 10-83))
- * (4) Contract Clauses (Construction Contract) January 1986
- (5) Labor Standards Provisions, November 1979 (Rev. 8-83)
- * (6) NAVFAC Specification No. 05-86-5423
- (7) Drawings identified in Section 01011 of the Specification
- ** (8) Wage Determination, Secretary of Labor Decision No. NC86-4, Building Construction

* These items are bound within the Specification at the front

** The Wage Determination is attached as the last page of the Specification

NOTE: All other items are attached on top of the Specification

NOTE:

INQUIRIES

PLANS AND SPECIFICATIONS: Questions regarding the plans and Specification occurring prior to bid opening shall be presented to the Public Works Design Division, Building 1005, Marine Corps Base, Camp Lejeune, North Carolina 28542, telephone (919) 451-5507. Questions requiring interpretation of drawings and the Specification must be submitted at least ten days before bid opening. Interpretations or modifications to specifications made as a result of questions will be made by amendment only, and unless so done, all bidders should base their bids on the plans and Specification as issued.

BIDDING PROCEDURES: All questions concerning the bidding procedures shall be presented to OICC-ROICC Contract Branch, Room 26, Building 1005, Marine Corps Base, Camp Lejeune, North Carolina, telephone (919) 451-2582.

05-86-5423

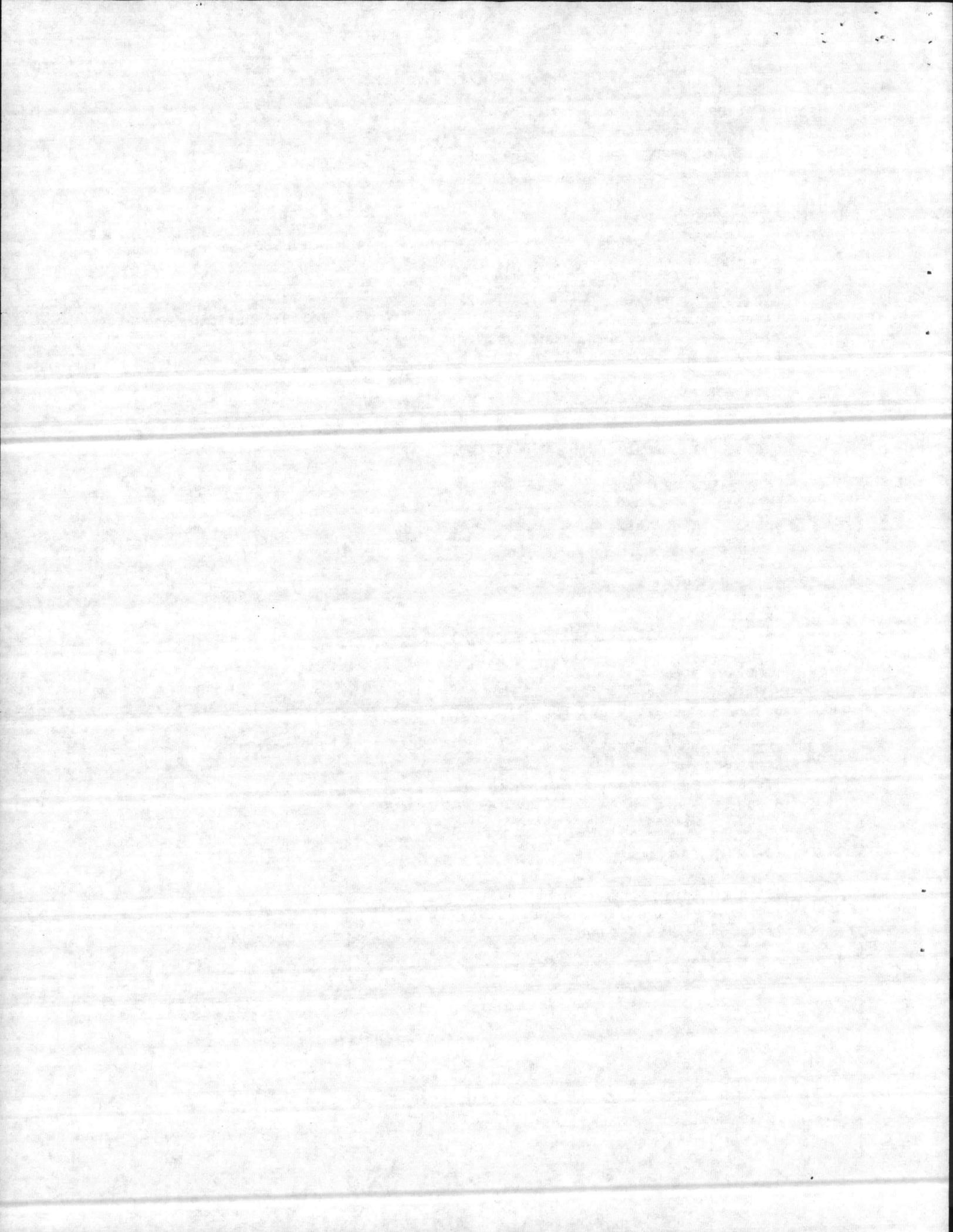
CONTENTS

CONTENTS

- SECTION 00101. Instructions to Bidders
- Contract Clauses
 - Representations and Certifications
 - Labor Standard Provisions Changes

DIVISION

- | | |
|--|---|
| 1. GENERAL REQUIREMENTS
SECTION
01010. General Paragraphs
01011. Additional General Paragraphs
01040. Cutting and Patching
01401. Contractor Inspection System
01560. Environmental Protection | 9. NOT USED |
| 2. SITE WORK
SECTION
02050. Demolition and Removal
02823. Re-Establishing Vegetation | 10. SPECIALTIES
SECTION
10440. Building Enumeration |
| 3. CONCRETE
SECTION
03302. Cast-in-Place Concrete | 11. THRU 16. NOT USED |
| 4. NOT USED | |
| 5. METAL
SECTION
05500. Metal Fabrications | |
| 6. WOOD AND PLASTIC
SECTION
06201. Carpentry and Woodwork | |
| 7. THERMAL AND MOISTURE PROTECTION
SECTION
07400. Solid Vinyl Siding Work
07600. Sheet Metal and Cladding
07920. Sealants | |
| 8. DOORS AND WINDOWS
SECTION
08110. Steel Doors and Frames
08520. Vinyl Clad Aluminum Double Hung Windows
08710. Finish Hardware | |



SECTION 01010
GENERAL PARAGRAPHS

1. GENERAL INTENTION: It is the declared and acknowledged intention and meaning to provide and secure vinyl siding on various buildings, complete and ready for use.
2. GENERAL DESCRIPTION: The work includes removal of existing siding and replacement with new plywood, exterior gypsum board sheathing, felts, extruded polystyrene sheathing/insulation, solid PVC siding with cladding of new trim with vinyl coated aluminum, new doors and windows, new concrete steps and landings, and incidental related work in nine buildings.
3. The work shall be located at the Marine Corps Base, Camp Lejeune, North Carolina, approximately as shown. The exact location will be indicated by the Contracting Officer. "Officer in Charge of Construction (OICC)" and "Contracting Officer" are used interchangeably in this specification and have the same meaning.
4. NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (APR 1984).

(Applies when the amount of the contract is in excess of \$10,000.)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	Goals for female participation for each trade
23.5%	6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor

shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Director, Office of Federal Contract Compliance Programs, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the-

- (1) Name, address, and telephone number of the subcontractor;
 - (i) Employer identification number of the subcontractor;
- (2) Estimated dollar amount of the subcontract;
- (3) Estimated starting and completion dates of the subcontract; and
- (4) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is State of North Carolina; Counties of Columbus, Duplin, Onslow and Pender. (FAR 52.222-23)

5. REQUIRED INSURANCE: (a) The Contractor shall procure and maintain during the entire period of performance under this contract the following minimum insurance coverage.

<u>Type of Insurance</u>	<u>Per Person</u>	<u>Per Accident</u>	<u>Property</u>
1. Comprehensive General Liability		\$500,000	
2. Automobile Liability	\$200,000	\$500,000	\$ 20,000

3. Workmen's Compensation: As required by Federal and State workers' compensation and occupational disease statutes.

4. Employer's liability coverage: \$100,000, except in states where workers' compensation may not be written by private carriers.

5. Other as required by state law.

(b) Prior to commencement of work, the Contractor shall furnish to the Contracting Officer a certificate or written statement of the above required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that cancellation or any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such period as may be prescribed by the laws of the State in which this contract is to be performed and in no event less than thirty (30) days after written notice thereof to the Contracting Officer.

(c) The Contractor agrees to insert the substance of this clause, including this paragraph (c), in all subcontracts hereunder.

SECTION 01011
ADDITIONAL GENERAL PARAGRAPHS

1 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984): The Contractor shall be required to (a) commence work under this contract within 10 calendar days, (b) prosecute the work diligently, and (c) complete the entire work ready for use within 180 calendar days.

2 LIQUIDATED DAMAGES--CONSTRUCTION (APR 1984): (a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, the Contractor shall pay to the Government as liquidated damages, the sum of \$30.00 per building for each day of delay, not to exceed \$100.00 per day of delay for the entire contract. (FAR 52.212-5)

(b) If the Government terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Government in completing the work.

(c) If the Government does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

3 DRAWINGS ACCOMPANYING SPECIFICATION: The following drawings accompany this specification and are a part thereof. Drawings are the property of the Government and shall not be used for any purpose other than that contemplated by the specification. If reduced size drawings are provided, graphic scales shall be used. Full-size drawings may be inspected during regular working hours at the office of the Contracting Officer.

<u>NAVFAC</u> <u>DWG. NO.</u>	<u>SHEET NO.</u>	<u>TITLE</u>
4132981	C-1	Vicinity, Location and Site Location Maps
4132982	A-1	Plans, Elevations and Section, Bldg. M-102
4132983	A-2	Floor Plan, Bldg. M-104
4132984	A-3	Elevations, Bldg. M-104
4132985	A-4	Sections and Details, Bldg. M-104
4132986	A-5	Plan, Elevations and Sections, Bldg. M-105
4132987	A-6	Plan, Elevations, Sections and Details, Bldgs. M-112 and M-113
4132988	A-7	Plan, Elevations, Sections and Details, Bldgs. M-119 and M-120
4132989	A-8	Floor Plan and Elevations, Bldgs. M-121 and M-122

3.1 Drawing Verification and Control: The Contractor shall check all drawings furnished him immediately upon their receipt and shall promptly notify the Contracting Officer of any discrepancies. Figures marked on drawings shall in general be followed in preference to scale measurements. Large scale drawings shall in general govern small scale drawings. The Contractor shall compare all drawings and verify the figures before laying out the work and will be responsible for any errors which might have been avoided thereby.
(FAR SUPP 52.236-7002 (c))

4 SPECIFICATIONS AND PRINTS FURNISHED TO CONTRACTOR: Six copies of the project specifications, and six sets of the drawings accompanying the specifications will be furnished the Contractor without charge. Additional sets of the specifications and drawings can be obtained, if required, by application to the Contracting Officer, provided that the need therefore is justified to the satisfaction of the Contracting Officer.

5 MATERIALS AND EQUIPMENT TO BE SALVAGED: Contract Clause entitled "Salvage Materials and Equipment" is hereby deleted. Except where specifically specified otherwise herein, all existing materials and equipment which are required to be removed or disconnected to perform the work, but are not indicated or specified for use in the new work, shall become the property of the Contractor and shall be removed from Government property.

6 OPERATION OF STATION UTILITIES: The Contractor shall not operate nor disturb the setting of any control devices in the station utilities system, including water, sewer, electrical, and steam services. The Government will operate the control devices as required for normal conduct of the work. The Contractor shall notify the Contracting Officer giving reasonable advance notice when such operation is required.

7 UTILITIES:

7.1 Availability of Utilities Services: Contract clause entitled "Availability and Use of Utility Services" applies. Reasonable amounts of water and electricity from the nearest available outlet free of charge for pursuance of work under this contract. If the nearest available outlet cannot be utilized by the Contractor because of improper voltage, insufficient current, improper pressure, incompatible connectors, etc., it shall be the responsibility of the Contractor to provide temporary utilities as required.

7.2 Energy and Utilities Conservation: The Contractor shall carefully conserve utilities furnished without charge. The Contractor, at his own expense and in a manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines and remove the same prior to final acceptance of the construction.

7.3 Location of Underground Utilities: Where existing piping, utilities, and underground obstructions of any type are indicated in locations to be traversed by new piping, ducts, and other work provided hereunder, and are not indicated or specified to be removed, the elevations of the existing utilities and obstructions shall be determined before the new work is laid closer than the nearest manhole or other structure at which an adjustment in grade could be made. For any additional work required by reason of conflict between the new and existing work, an adjustment in contract price will be made in accordance with Contract clause entitled "Differing Site Conditions". The Base Telephone Officer, telephone 451-2531, will show the Contractor approximate locations of all buried telephone and fire alarm cables after receiving ten days notice. The locations of underground utilities shown is only approximate and the information is incomplete.

8 TRAILERS OR STORAGE BUILDINGS: In accordance with Contract Clause entitled "Operations and Storage Areas", trailers or storage buildings will be permitted, where space is available, subject to the approval of the